Claims:

1. A method of correlating a satellite signal with a pseudorandom reference code, comprising:

     receiving samples of a satellite signal having a repeating code;

     performing at least one fast convolution between said samples and the pseudorandom reference code;

     detecting a correlation peak within a result of said at least one fast convolution;

     estimating a code delay of said repeating code relative to said pseudorandom reference code at said correlation peak; and

     correlating said samples with the pseudorandom reference code using said estimated code delay as an initial code delay value.

2. The method of claim 1, wherein said at least one fast convolution comprises a plurality of fast convolutions, and the method further comprises:

     performing a non-coherent integration on said plurality of fast convolutions to generate said result.

3. The method of claim 1, wherein said step of performing at least one fast convolution comprises:

     applying a carrier correction to said samples;

     presuming said samples over a plurality of periods of said repeating code;

     processing said samples and said pseudorandom reference code using a Fast Fourier Transform (FFT);

     multiplying said FFT processed samples and said FFT processed pseudorandom reference code to generate a product; and

     processing said product with an inverse FFT.

4. The method of claim 3, wherein said at least one fast convolution comprises a plurality of fast convolutions, and the method further comprises:

     applying a time drift correction to said product; and

     performing a non-coherent integration on said plurality of fast convolutions to generate said result.

5. The method of claim 1, wherein said step of detecting comprises:

identifying a plurality of potential correlation peaks; and

selecting said correlation peak from said plurality of potential correlation peaks.

6. The method of claim 1, wherein said step of correlating comprises:

performing early-late correlation between said samples and said pseudorandom reference code.

7. The method of claim 6, further comprising:

accumulating results of said early-late correlation over a plurality of periods of said repeating code; and

performing a non-coherent integration on said accumulated results.

8. The method of claim 6, wherein a starting position of said pseudorandom reference code relative to said samples is set to said code phase.

9. The method of claim 6, wherein said samples are presumed over a plurality of periods of said repeating code before said early-late correlation is performed.

10. The method of claim 1, further comprising:

storing said samples in a memory.

11. An apparatus for correlating a satellite signal with a pseudorandom reference code, comprising:

a satellite signal receiver for receiving a satellite signal having a repeating code and producing samples of said satellite signal;

a processor for performing at least one fast convolution between said samples and said pseudorandom reference code;

means for detecting a correlation peak within a result of said at least one fast convolution;

means for estimating a code delay of said repeating code relative to said pseudorandom reference code at said correlation peak; and

a correlator for correlating said samples with the pseudorandom reference code using said estimated code delay as an initial code delay value.

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12. The apparatus of claim 11, further comprising:

a memory for storing said samples.

13. The apparatus of claim 11, wherein said at least one fast convolution comprises a plurality of fast convolutions, and the apparatus further comprises:

means for performing a non-coherent integration on said plurality of fast convolutions to generate said result.

14. The apparatus of claim 11, wherein said processor comprises:

a first multiplier for applying a carrier correction to said samples;

a memory for accumulating said samples over a plurality of periods of said repeating code;

a Fast Fourier Transform (FFT) processor for processing said samples and said pseudorandom reference code using an FFT;

a second multiplier for multiplying said FFT processed samples and said FFT processed pseudorandom reference code to generate a product; and

an inverse FFT processor for processing said product with an inverse FFT.

15. The apparatus of claim 14, wherein said at least one fast convolution comprises a plurality of fast convolutions, and the appartus further comprises:

means for applying a time drift correction to said product; and

an integrator for performing a non-coherent integration on said plurality of fast convolutions to generate said result.

16. The apparatus of claim 11, wherein said means for detecting comprises:

means for identifying a plurality of potential correlation peaks; and

means for selecting said correlation peak from said plurality of potential correlation peaks.

17. The apparatus of claim 11, wherein said means for correlating comprises:

means for performing early-late correlation between said samples and said pseudorandom reference code.

18. The apparatus of claim 17, further comprising:

means for accumulating results of said early-late correlation over a plurality of periods of said repeating code; and

means for performing a non-coherent integration on said accumulated results.

19. The apparatus of claim 17, wherein a starting position of said pseudorandom reference code relative to said samples is set to said code phase.

20. The apparatus of claim 17, wherein said samples are presumed over a plurality of periods of said repeating code before said early-late correlation is performed.

21. The apparatus of claim 11, wherein said means for correlating is a parallel correlator.